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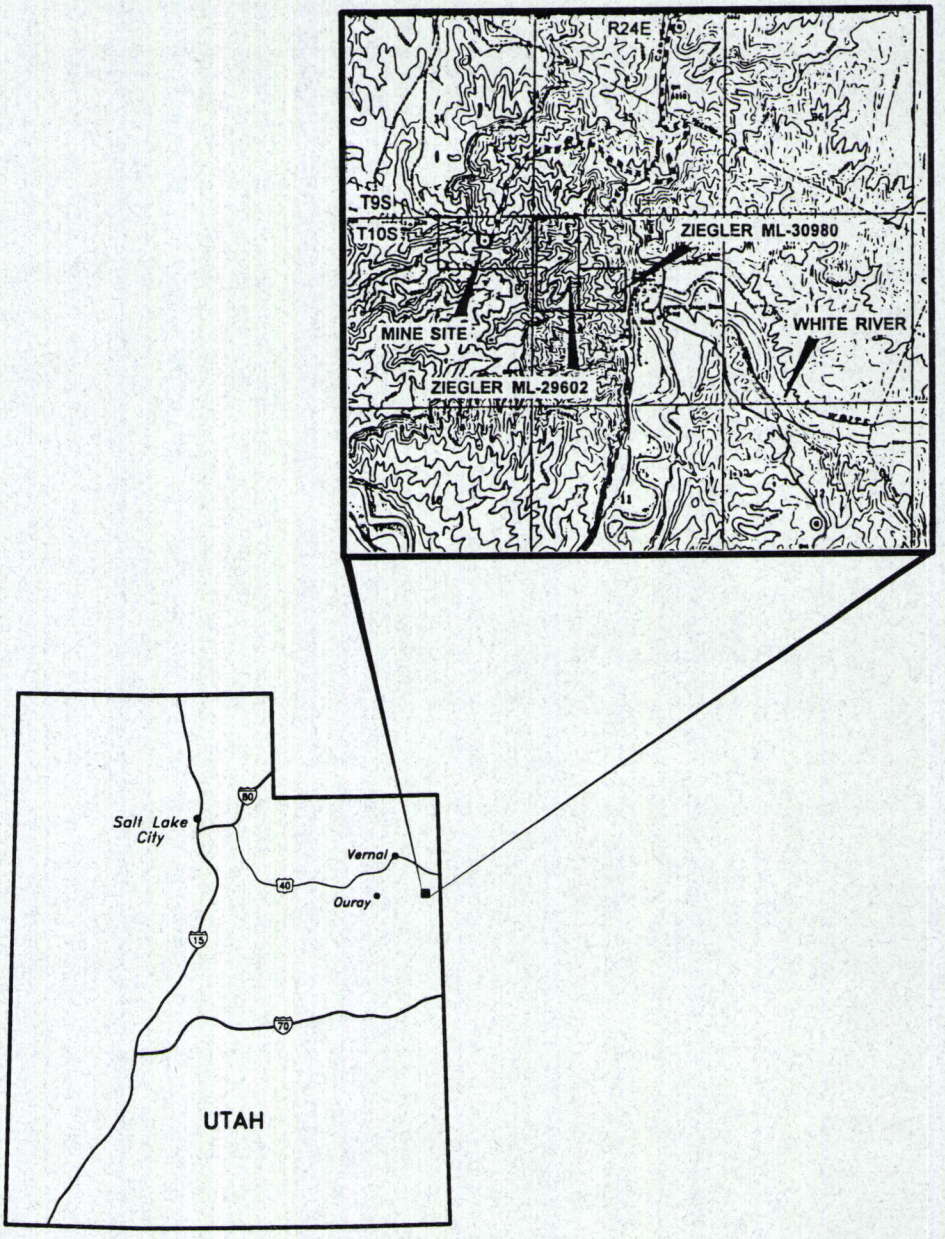
ENVIRONMENTAL ASSESSMENT FOR ZIEGLER CHEMICAL & MINERAL CORPORATION'S TOM TAYLOR GILSONITE MINE SHAFT NO. 3, UINTAH COUNTY, UTAH EA NO. 1997-21



U.S. Bureau of the Interior
Bureau of Land Management
Vernal District Office
Vernal, Utah
May 1997

DOGM RECEIVED
JULY 18, 1997

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal District Office
170 South 500 East
Vernal, Utah 84078-2799

Phone: (801) 781-4400
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IN REPLY REFER TO:
3590
UT08300

MAY 22 1997

Dear Public Land User:

The completed Ziegler Chemical & Mineral Corporation's Tom Taylor Gilsonite Mine Shaft No. 3 Environmental Assessment is provided for your information and use. No public or agency comments were received.

I would like to take this opportunity to thank those of you who reviewed this document.

A Decision Record is enclosed with this Environmental Assessment. The Decision Record outlines the decision and the rationale that was used to determine the alternative selected as well as the Conditions of Approval.

Sincerely,

David E. Howell
District Manager

DECISION RECORD AND FINDING OF NO SIGNIFICANT IMPACT
ZIEGLER CHEMICAL & MINERAL CORPORATION'S
TOM TAYLOR GILSONITE MINE SHAFT NO. 3
ENVIRONMENTAL ASSESSMENT
EA NO. 1997-21

Ziegler Chemical & Mineral Corporation (Ziegler) proposes to re-enter Shaft No. 3 of the Tom Taylor Mine south of Bonanza, Utah, Uintah County. The purpose is to mine the remaining block of ore located in the Little Emma Gilsonite Vein. Previous mining in Shaft No. 3 was completed in 1968. The mine is located on Lease U-0122694. No new surface disturbance is anticipated.

Decision

It is my decision to approve the Proposed Action Alternative. Mitigation measures identified for the selected Proposed Action have been formulated into the Conditions of Approval (COAs). Applicant-committed environmental protection measures, as contained in the Proposed Action and reiterated in the COAs are additional proponent obligations.

The action and conditions analyzed and formulated are in conformance with the Book Cliffs Resource Area Resource Management Plan (BCRMP) (BLM, 1985).

Finding of No Significant Impact

Based on the analysis of potential environmental impacts contained in EA No. 1997-21, I have determined that impacts are not expected to be significant and an Environmental Impact Statement is not required.

Rationale for Decision

The decision to allow the Proposed Action will not result in any undue or unnecessary environmental degradation. Impacts to golden eagle nests sites will be mitigated through using an alternative access road from February 1 through July 15, if eagles are nesting.

Affected Party

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR §3598.5 and Form 1842-1, Information on Taking Appeals to the Board of Land Appeals. If an appeal is taken, your notice of appeal must be filed in the Vernal District Office within 30 days from receipt of this decision. The appellant has the burden of showing the decision appealed from is in error.

If you wish to file a request for a stay or suspension of the effectiveness of this decision pursuant

to the regulations of 43 CFR §3594.5 and 43 CFR §4.21(a) during the time that your appeal is being reviewed by the Board, the petition for stay should accompany your notice of appeal. A petition for a stay shall included sufficient justification based on the standards outlined in 43 CFR §4.21(b). Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision, to the Interior Board of Land Appeals, and the Office of the Solicitor at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied,

(2) The likelihood of the appellant's success on the merits,

(3) The likelihood of immediate and irreparable harm if the stay is not granted, and

(4) Whether the public interest favors granting the stay.

David E. Howell
Vernal District Manager

5/22/97
Date

Attachments:
1. EA No. 1997-21, Ziegler Chemical & Mineral Corporation's Tom Taylor Gilsonite Mine Shaft No. 3

2. Conditions of Approval

CONDITIONS OF APPROVAL
ENVIRONMENTAL ASSESSMENT FOR ZIEGLER CHEMICAL & MINERAL CORPORATION'S TOM TAYLOR GILSONITE MINE SHAFT NO. 3, UINTAH COUNTY, UTAH EA NO. 1997-21

Waivers, Exceptions, or Modifications to the following Conditions Of Approval (COAs) may be specifically approved in writing by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the Authorized Officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- a timeframe for the AO to complete an expedited review under 36CFR800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Prior to the drilling of exploratory holes, the lessee/operator shall submit to the Authorized Officer (AO) for approval the location, depth, and abandonment procedures.

All ground openings will be fenced with chain link fencing. Appropriate warning signs shall be placed on the fencing.

The alternate access road shall be used from February through July 15, when golden eagles are nesting within 0.5 miles of the primary access road.

Waste rock will be stored in such a manner to prevent escape of the material by wind and erosion.

A berm with straw bales will be constructed on the low side of the shaft and ore bin to contain any gilsonite particle movement by rain waters.

Ore trucks shall be covered to prevent the escape gilsonite dust.

The final concrete seal over the closed shafts and escapeways shall be at least two (2) feet below ground level.

Upon abandonment the site shall approximate the original contour. The stockpiled topsoil will be spread and seeded with a seed mixture approved by the AO.

ENVIRONMENTAL ASSESSMENT FOR ZIEGLER CHEMICAL & MINERAL CORPORATION'S TOM TAYLOR GILSONITE MINE SHAFT NO. 3, UINTAH COUNTY, UTAH

EA No. 1997-21

Prepared for

Ziegler Chemical & Mineral Corporation
Vernal, Utah

and

Bureau of Land Management
Vernal District Office
Vernal, Utah

By

TRC Mariah Associates Inc.
Laramie, Wyoming
MAI Project 22312

and

Robert E. Covington, CPG #1705
Vernal, Utah

May 1997

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1.0 INTRODUCTION

Ziegler Chemical & Mineral Corporation (Ziegler) proposes to re-enter Shaft No. 3 of the Tom Taylor Mine in the Bonanza locality of southeast Uintah County, Utah, to mine out a remaining block of ore in the Little Emma gilsonite vein. Previous mining in Shaft No. 3 was completed in 1968. Mining would occur on U.S. Gilsonite Lease U-0122694, and no new surface disturbance is anticipated.

The mine is located in the Book Cliffs Resource Area of the Vernal District of the Bureau of Land Management (BLM) (Figure 1.1). This environmental assessment (EA) assesses the impacts of mining proposed on the existing site in the NE¼NE¼ of Section 3, T10S, R24E. The mining would begin in early 1997 and continue for 5-7 years or until the gilsonite deposit is exhausted or there is no further demand for the gilsonite.

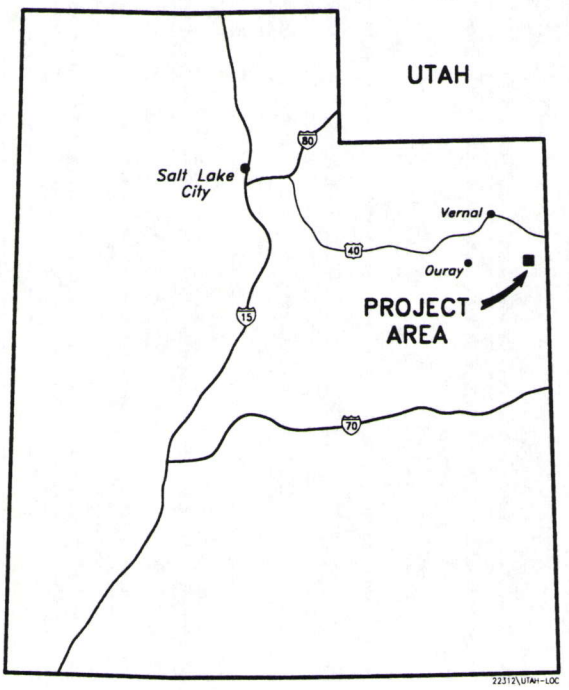

Figure 1.1 General Location Map.

The Little Emma vein is one of the many veins that occur in the northeastern portion of the Uinta Basin (Figure 1.2). Gilsonite--a solid, brittle hydrocarbon--was formed when liquid hydrocarbons from the kerogen-rich beds of the upper part of the Green River Formation flowed into near vertical fractures in the Uinta Formation and subsequently solidified to form veins (Verbeek and Grout 1992; Monson and Parnell 1992). Gilsonite has been mined extensively in the Bonanza area since the latter part of the nineteenth century. It is shipped worldwide and is used in, among other things, the production of inks, sealing mastics, explosives, paints and varnishes, and control rods in some types of nuclear reactors.

The development of federal gilsonite leases and associated facilities is an integral part of the BLM's leasing program under authority of the *Mineral Leasing Act of 1920* as amended, the *Mineral Leasing Act for Acquired Lands*, and the *Federal Land Policy and Management Act of 1976*. The EA area is within the Book Cliffs Resource Area, and policies for development and land use decisions within this area are contained in the *Final Environmental Impact Statement on the Book Cliffs Resource Management Plan* (BCRMP) (BLM 1984). The Proposed Action would conform with the BCRMP because gilsonite resources would be developed on lands deemed suitable for that use under a development scenario that gives adequate protection to the environment.

This EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and in compliance with all applicable regulations and laws passed subsequently, including Council of Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR], Parts 1500-1508), U.S. Department of Interior (USDI) requirements (*Department Manual 516, Environmental Quality*), and guidelines listed in BLM *NEPA Handbook, H-1790-1* (BLM 1988).

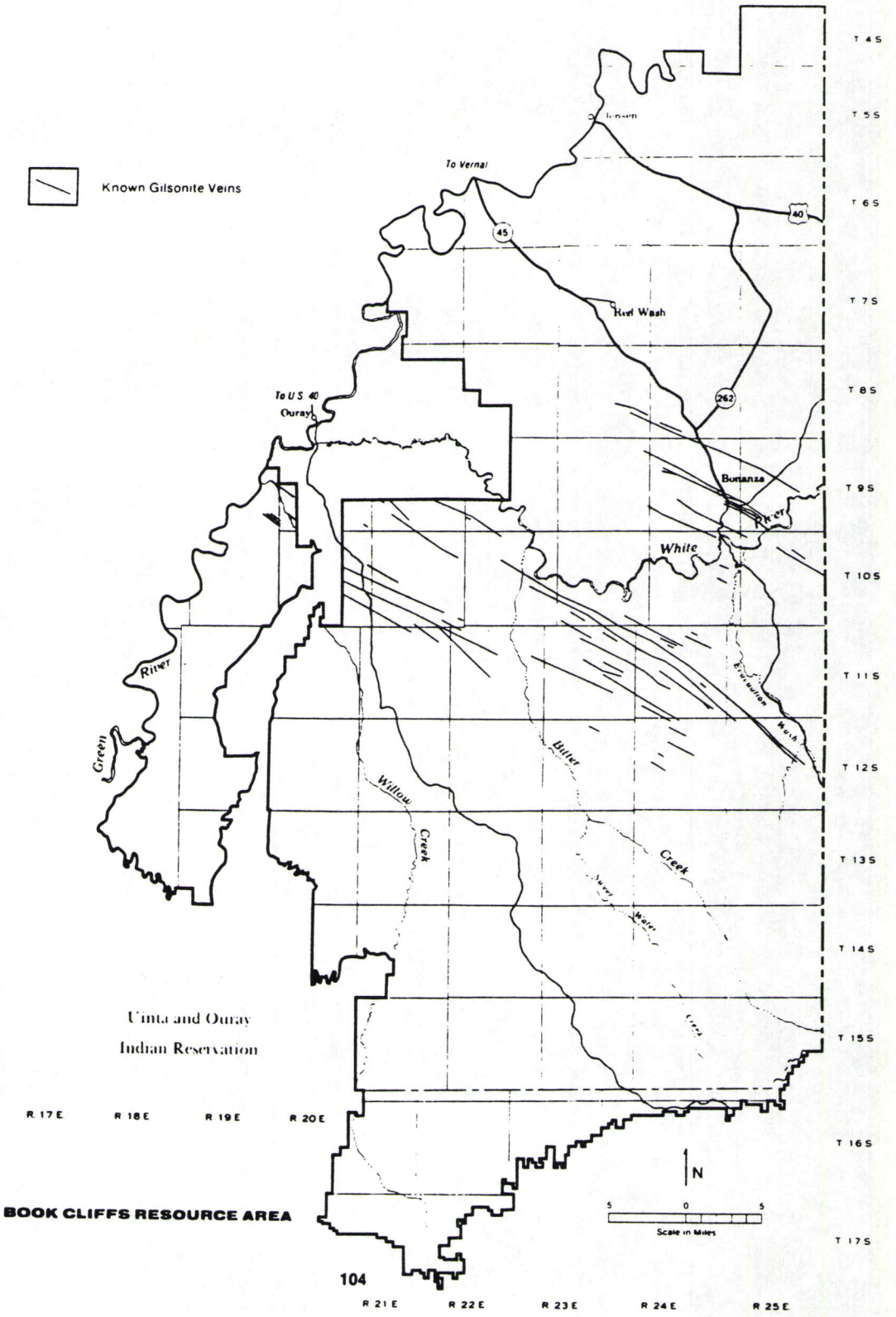

Figure 1.2 Location of Gilsonite Veins in the Uinta Basin.

2.0 PROPOSED ACTION AND ALTERNATIVES

The purpose and need for the Proposed Action is for Ziegler to exercise its leaseholder's rights to mine gilsonite reserves from Shaft No. 3 of the Tom Taylor Mine in order to supply the appropriate quality of gilsonite in the quantities requested by customers, and to obtain a return on investment.

2.1 THE PROPOSED ACTION

The Proposed Action would involve the mining of gilsonite from the Little Emma gilsonite vein in the NE¼NE¼ of Section 3, T10S, R24E in Uintah County, Utah (Figure 2.1). The vein trends North 56° West and averages 24 inches in width at the surface (Figure 2.2). The existing Shaft No. 3 of the Tom Taylor Mine would be used to access the gilsonite vein. Shaft No. 3 was sunk to a depth of 230 ft, and 4,000 tons of ore has previously been mined. An estimated 55,000 tons of gilsonite remain available for mining. The mine would operate for 5-7 years.

2.1.1 The Mining Plan

Shaft No. 3, located on the southwest end of the Little Emma vein, would be reopened. The shaft is located in the approximate center of the NE½NE¼ of Section 3, T10S, R24E, at an elevation of approximately 5,591 ft (Figure 2.3). The dirt access road to the mine leaves paved State Route 45 near the NW corner of the SW¼SE¼ of Section 35, T9S, R24E in Wagon Hound Canyon at an elevation of 5,000 ft and runs approximately 6,000 ft to the mine site.

Ziegler would pull the old mine collar at Shaft No. 3 and construct a new collar that would be 18 ft long and 3.5 ft wide (interior width), with 8-inch thick concrete walls reinforced with rebar. The shaft would be divided into three compartments supported by timbers. One compartment--the manway--would be about 8 ft long and would contain a hoist system for

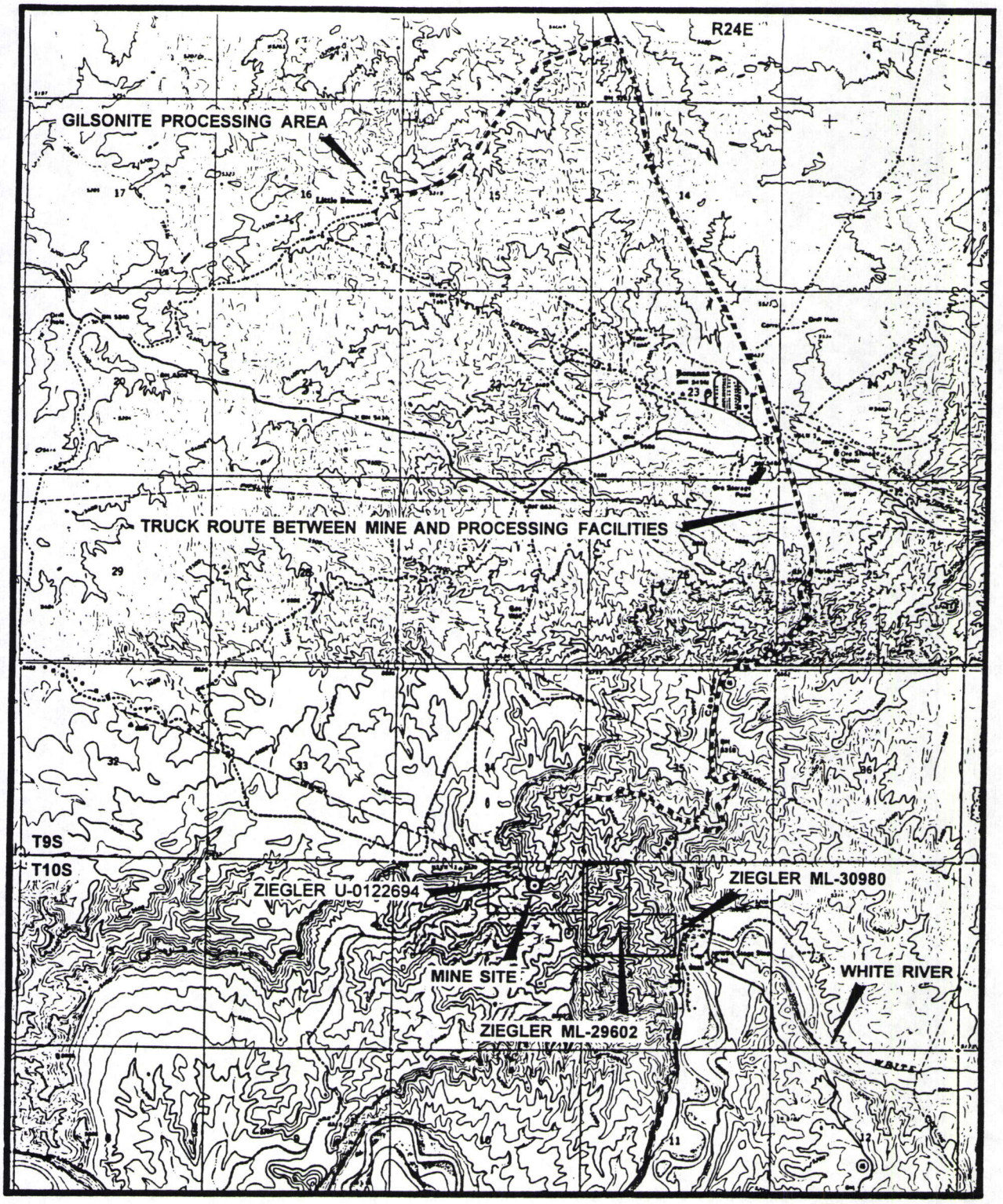

Figure 2.1 Location of Mine Site, Roads, and Processing Area.

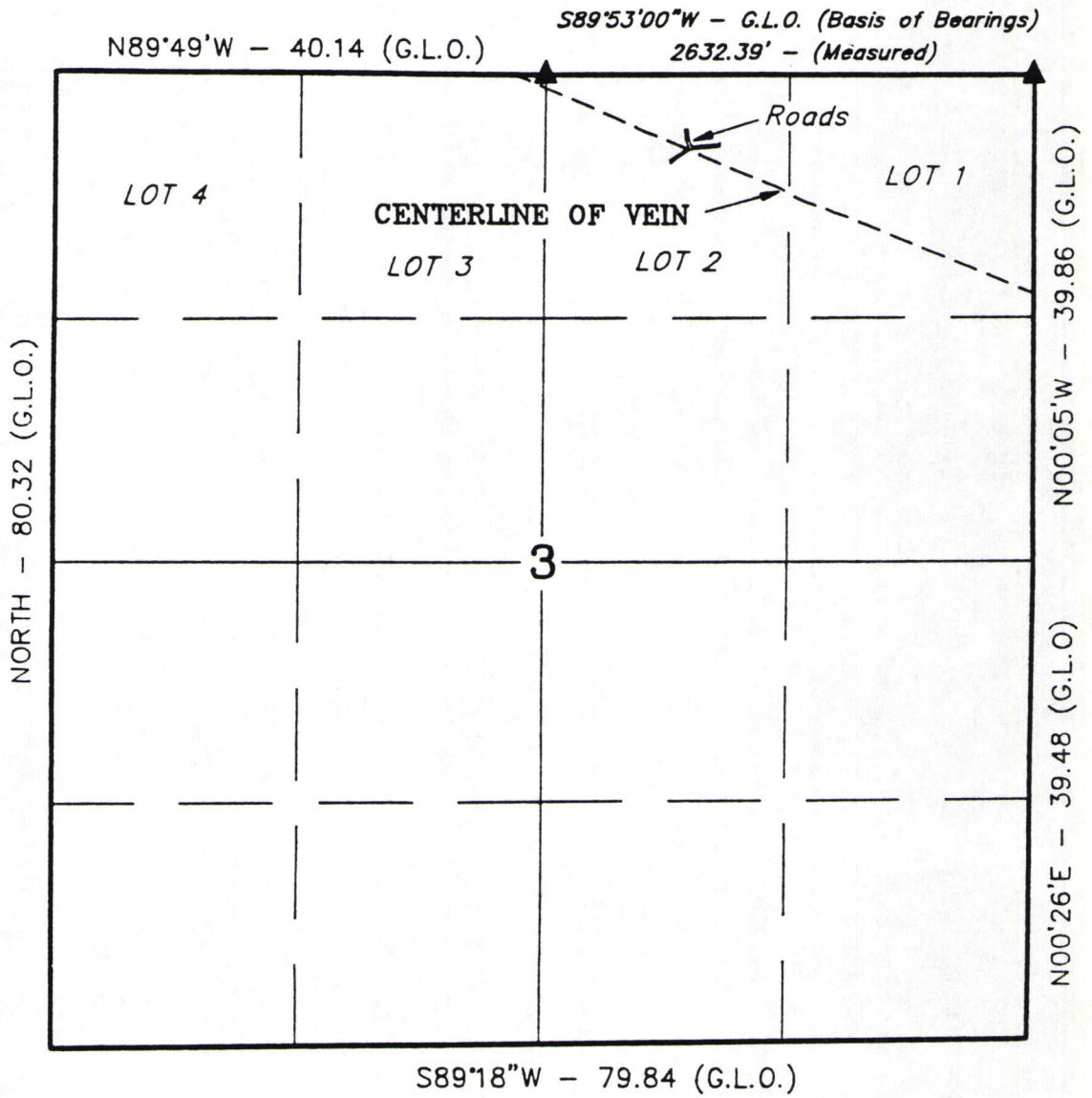

Figure 2.2 Location of Little Emma Gilsonite Vein Within Section 3, T10S, R24E.

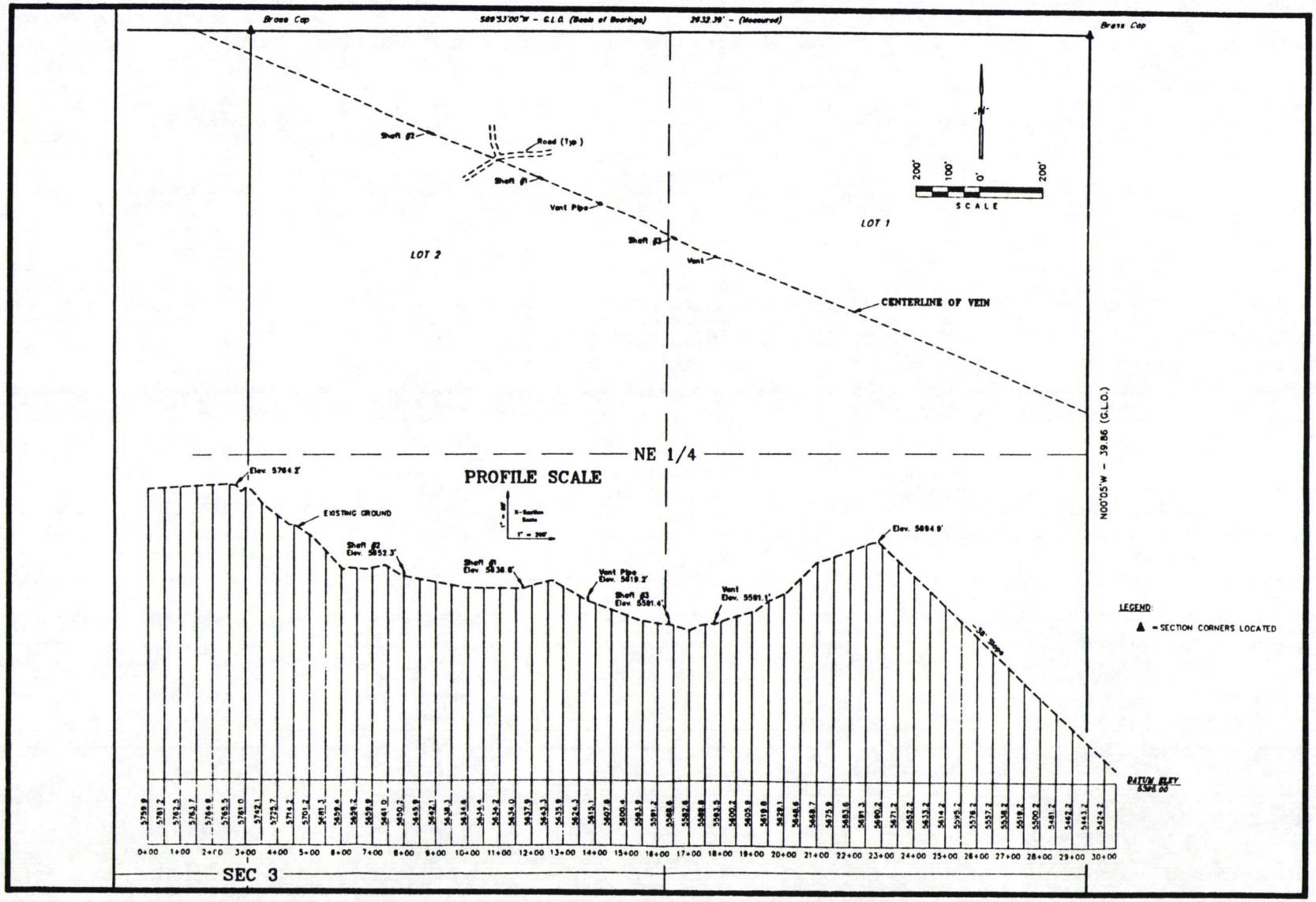

Figure 2.3 Profile of Little Emma Gilsonite Vein.

the workers and their equipment. The utility shaft (approximately 6 ft long) would contain the air hose conduit, electrical cables, and pipeline to the working area. The ladder manway would be about 6 ft long and would accommodate a ladder as a second way to access, or escape from, the shaft.

Existing airshafts are located 260 ft west and 180 ft southeast of Shaft No. 3 along the vein, and both would be retimbered and have new ladders installed for escapeways (see Figure 2.3).

Stoping (steplike excavation underground for the removal of ore that is formed as the ore is mined in successive layers) would begin near the top of the vein--10 ft below the bottom of the first pillar in the old mine workings--on both sides of the shaft (Figure 2.4). Gilsonite ore would be chipped using air hammers with moil point bits.

The airlift conduit would be run down the utility shaft to the first level of mining and then elbowed to the west approximately 170 ft to the face of the ore. After that block of ore is mined, shaft timbering would be carried to the total depth of the old mine. A 20-ft roof to the surface would be left unmined to prevent surface subsidence and to avoid any surface cuts. Vertical distance between mining blocks would be 100 ft, and a 10 ft pillar of ore would be left between blocks for safety reasons. Gilsonite chipped from the slope face would fall to the bottom of the slope and be airlifted to the surface and into the ore bins. From the ore bins, the ore would be transported by truck to the bag house at Little Bonanza.

An estimated 25-35 tons per day of ore would be mined.

No water would be withdrawn from the White River.

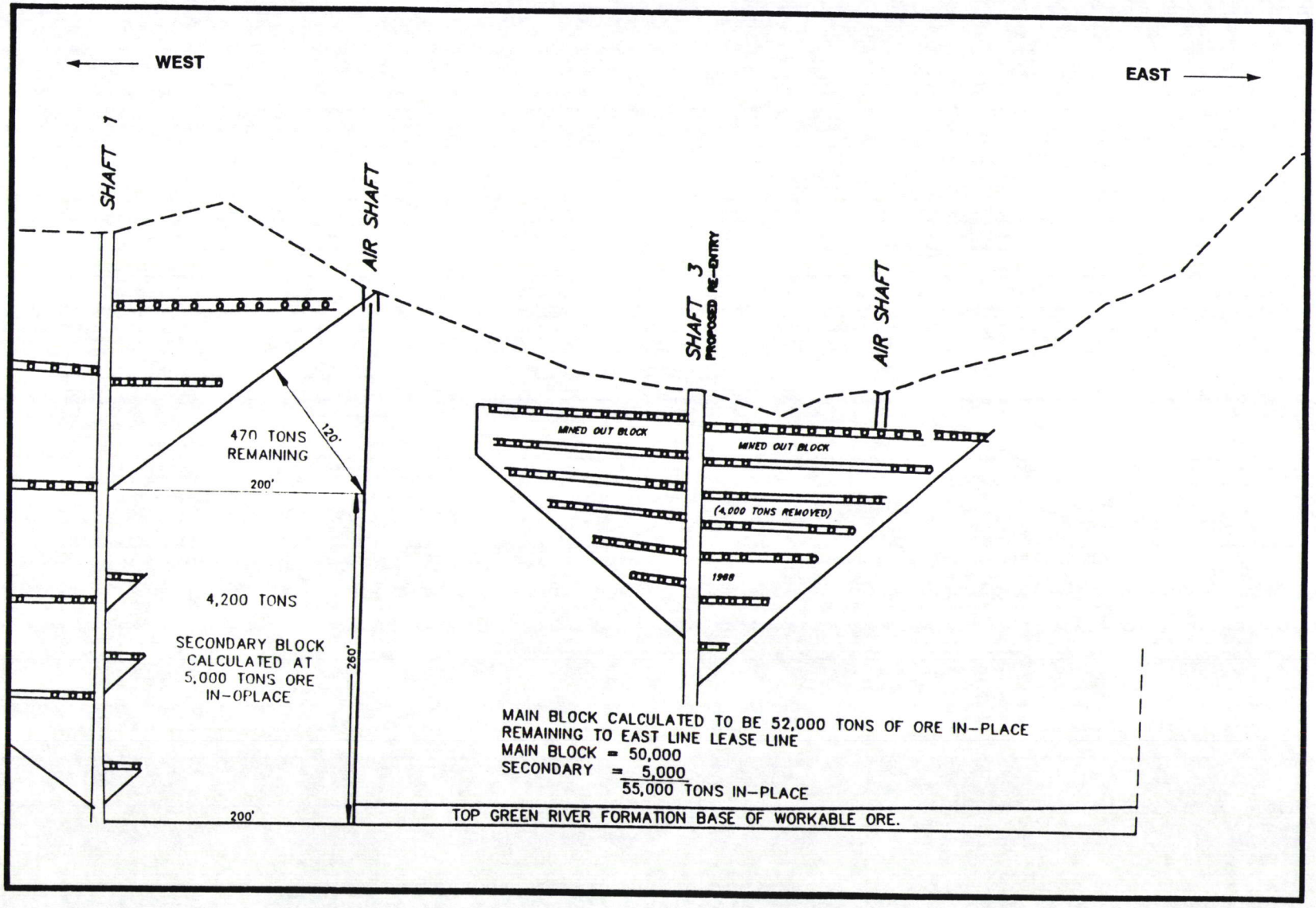

Figure 2.4 Cross Section of Proposed Mining at Shaft No. 3 of Tom Taylor Mine.

2.1.1.1 Mine Wall Stabilization and Temporary Floors

Wooden skulls (braces) would be placed wherever necessary to brace the walls of the mine, but generally in a 5 x 5-ft pattern. The timbers for these braces would be stored on Ziegler's patented land southeast of the EA area in N½NE¼ of Section 4, T9S, R24E. Temporary floors during mining would be constructed of chain link fence supported by wooden skulls chipped into the rock walls.

2.1.1.2 Bore Holes and Samples

Ziegler would promptly submit to the BLM's Authorized Officer (AO) a signed copy of records of all core or test samples taken from the lease area. The record would include all pertinent data such as location and elevation of the holes and a description of the samples and all strata drilled, including conditions encountered (e.g., water, gas, oil). Ziegler would retain such materials for a period of not less than 1 year.

Surface drill holes for development or prospecting would be abandoned by methods approved by, and to the satisfaction of, the AO.

2.1.1.3 Disposal of Waste Rock

Waste rock produced during mining would consist of wall rock and rubble possibly containing some gilsonite in a mixture that is not economically viable to separate. This waste rock would be pushed back into the shaft after completion of mining and prior to shaft sealing.

2.1.1.4 Maps of Underground Workings and Surface Operations

Ziegler would draw and maintain maps of underground workings on a scale suitable and acceptable to the BLM, including plan maps and vertical cross sections. The maps would

be certified by a professional engineer, professional land surveyor, or other qualified person and would be furnished to the AO as required.

2.1.1.5 Production Records and Maps

Ziegler would prepare and maintain records and maps showing mineral production from the leased lands and submit them to the AO at the end of each royalty reporting period. The records and maps would include disclosure of any problems encountered in the mining, including such things as subsidence, faulting, or unusual rock wall conditions.

2.1.1.6 Hazardous Materials

No hazardous materials would be used during the mining operation other than the diesel fuel for the generator, propane to heat the interior of the hoist house, gasoline and motor oil in vehicles, battery acid, and grease for lubrication of equipment. All of these substances would be handled in compliance with existing regulations. Less than 10,000 pounds of any chemical(s) from EPA's *Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1996* and less than the Threshold Planning Quantity (TPQ) of any extremely hazardous substance(s), as defined in 40 CFR 355, would be used, produced, transported, stored, disposed of annually in association with the proposed action.

2.1.1.7 Transportation of Ore

An estimated four 6-ton ore trucks per day (5 days per week; no transportation on Saturday or Sunday) would be necessary to transport ore from the mine to Ziegler's existing facilities at Little Bonanza, where the ore would be bagged and shipped. Transportation to Little Bonanza would consist of 1.25 miles of unpaved road and approximately 6.5 miles of paved State Route 45. The ore trucks would be covered to prevent the escape of gilsonite dust.

2.1.1.8 Workforce

The workforce would include two underground miners and one hoistman at the surface.

2.1.2 Mine-Associated Facilities

2.1.2.1 Access/Haul Road

A existing dirt road would be used to access the mine site from State Route 45. The road would be graded as necessary to facilitate access by ore trucks and other appropriate vehicles.

2.1.2.2 Other Surface Facilities

Surface facilities to be used in the mining operation includes the following:

- a hoist house and headframe to raise and lower the diesel-powered hoist in the manway portion of the mine shaft;
- an ore bin for storage and loading of the gilsonite (16 x 20 x 16 ft high, with a 45° sloped base and equipped with a dust collector);
- a compressor house for the 350 ft^3/min electrically driven compressor that supplies compressed air to equipment in the mine;
- a generator house for the propane-powered generator that provides electricity to run the compressor and to provide lighting; and
- air lift equipment located on a pad next to the headframe, operated by a 100 hp diesel-powered fan and designed to lift ore to the surface through a 12-inch pipe in the utility shaft (Figure 2.5).

2.1.2.3 Total Area of Surface Disturbance

No additional surface disturbance would be required for the project.

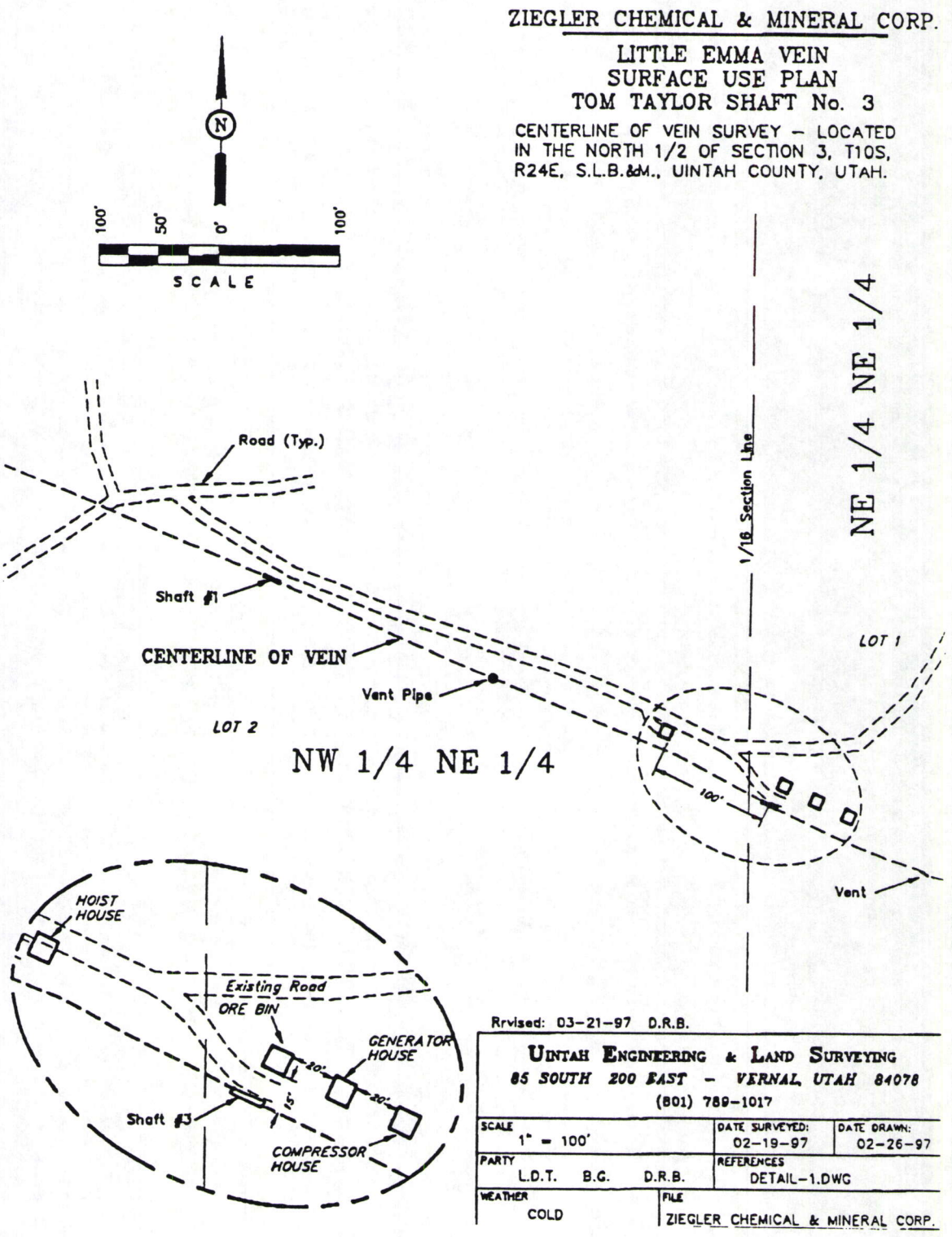

Figure 2.5 Location of Surface Facilities at Tom Taylor Shaft No. 3.

2.1.3 Abandonment and Reclamation

Upon completion of mine operations, all machinery, equipment, and debris would be removed from the site. The site would be graded to conform as closely as possible to premining conditions, covered with previously stockpiled topsoil, and seeded with a mixture approved by the AO. Currently, a seed mixture consisting of 75% western wheatgrass, 15% fourwing saltbush, and 10% winterfat harrowed in at 20 pounds per acre would be used for revegetation.

When the mine shaft would be ready for closure, at least six 4 x 4 inch timbers 4 ft long would be placed across the opening at intervals of about 4 ft. Plywood (3/4 inch) would be nailed in place on the timbers so as to overlap the shaft opening by at least 1 inch on all sides. Twelve inches of reinforced concrete would be poured on the plywood so as to overlap on all sides and establish an effective seal. Escapeways would be sealed in a similar manner.

2.1.4 Applicant-Committed Practices

2.1.4.1 Air Quality

Ziegler would install Micropul bag filters at the top of the head frame to collect dust raised by the airlift system that brings ore from up through the utility mine shaft.

2.1.4.2 Storm Water Drainage Control

A berm would be constructed on the low side of the shaft and the low side of the ore bin which would contain a bale of straw or hay to absorbed any gilsonite dust which would accumulate during a rain storm.

2.1.4.3 Fire Protection

Two Ansul 20-pound dry chemical nitrogen-charged fire extinguishers would be placed in the hoist house: one at the collar of the mine shaft; one by the generator; and two in the hoist house. All rules and regulations regarding fire prevention would be strictly adhered to.

2.1.4.4 Safety Precautions

All openings in the ground, such as escapeways, would be signed and fenced with chain link fencing. The four corners of the fence would consist of the structural equivalent of 2-inch tubing, cemented in a 4-ft hole for stability. When mining is not taking place, the shaft would be covered with planking suitable for the prevention of accidents. Both compressor and generator houses would be signed to indicate that ear plugs should be worn in and around them to prevent hearing loss. The property along access roads would be signed to warn the public of mining operations.

2.1.4.5 Cultural Resources

No collecting of artifacts by Ziegler employees would be allowed.

2.1.4.6 Miscellaneous Rules and Regulations

In order to minimize the human impacts to the environment from personnel involved in mining activities, employees would be subject to the following regulations as a condition of employment:

- no open fires of any kind except in approved buildings in approved stoves or furnaces;
- no harassing or shooting of wildlife or wild horses;
- no trash left in any unauthorized place;

- no unnecessary off-road driving; and
- no collecting of plants.

Miners would be instructed to maintain a clean camp and to report any unusual activity that could be detrimental and/or unlawful, such as fire or poaching.

2.1.4.7 Communications

For safety and mine efficiency, cellular telephone service would be maintained between the mine and the Ziegler office in Little Bonanza.

2.1.4.8 Solid Waste Disposal

All garbage and solid wastes (other than waste rock) would be placed in 55-gallon drums and hauled to Ziegler's existing dump at Little Bonanza. A portable chemical toilet would be located at the mine site for use by Ziegler personnel.

2.2 NO ACTION ALTERNATIVE

No other reasonable alternatives exist for the mining of gilsonite in the EA area, as the Proposed Action describes the only practicable way to mine the ore from the vein in a way that is economical and fully utilizes the mineral resource.

Under the No Action Alternative, the Proposed Action would not be implemented. Current land use practices would continue, and gilsonite leasing would continue under direction of the BCRMP (BLM 1984). Any new proposals for removal of gilsonite from the EA area would be reviewed under the NEPA process prior to approval.

3.0 AFFECTED ENVIRONMENT

The EA area is located in eastern Uintah County about 7.5 miles west of the Colorado state line at an elevation of approximately 5,600 ft. All surface and mineral estates are owned by the U.S. and are under the management of the BLM. The area is drained by a dry wash into the White River via Wagon Hound Canyon. Mean annual precipitation is 9-10 inches, of which 4.5 inches fall during the approximately 125-day growing season (Toy and Grim 1980). Vegetation is dominated by sagebrush, rabbitbrush, and juniper. The project area is included in Antelope Herd Unit 7--the Bonanza Herd; however, the terrain in the vicinity of the project area is steep and irregular and unsuitable for pronghorn. There are no known sage grouse strutting grounds (leks) within 2 miles of the project area. The general vicinity of the proposed project is used primarily for oil and gas development, livestock grazing, gilsonite mining, recreation, and wildlife habitat and is traversed by State Highway 45 which runs from U.S. Highway 40 (to the north) through Bonanza and south across the White River.

After reviewing Ziegler's mining plan and inspecting the site, BLM interdisciplinary specialists and TRC Mariah Associates Inc. personnel listed in Section 7.0 toured the proposed project site and developed a list of potentially significant issues and concerns to be analyzed in this EA. Only those elements of the environment that could be significantly affected by the alternatives are discussed in this assessment. Of the 12 critical elements of the human environment (BLM 1988), six (areas of critical environmental concern; prime or unique farmlands; floodplains; wetlands/riparian zones; wild and scenic rivers; and wilderness) do not occur in the vicinity of the project. Of the remaining six critical elements of the human environment, two (cultural remains and Native American religious concerns) would not be affected because there would be no new disturbance, and two (air quality and water quality) would not be affected because of the nature of the project. Two remaining critical elements are evaluated in this EA--threatened and endangered species and hazardous and solid wastes. Because the project area has already been disturbed, no impacts to paleontological resources would be anticipated. Gilsonite itself--the only geologic

feature that would be disturbed--contains neither archaeological nor paleontological resources because of its origin.

In addition to threatened and endangered species (including special status wildlife species) and hazardous and solid wastes, recreation is addressed because of the proximity of the project area to the White River, which has a significant and growing importance for recreational float trips. No other resources would be expected to be affected by the alternatives.

3.1 THREATENED, ENDANGERED, CANDIDATE, AND OTHER SPECIAL STATUS SPECIES

3.1.1 Threatened, Endangered, Candidate, and Other Special Status Animal Species

3.1.1.1 Black-footed Ferret (*Mustela nigripes*)

The endangered black-footed ferret has the potential to occur wherever prairie dog colonies of sufficient size and acceptable location are found. A single white-tailed prairie dog colony of 250 acres or a complex of smaller colonies (occurring within the area of a circle with a 4.5-mile radius) that totals 250 acres is considered to be the minimum size necessary to constitute potential black-footed ferret habitat (U.S. Fish and Wildlife Service [USFWS] 1989). Prairie dog colonies of sufficient size and density to meet USFWS criteria to require a ferret survey do not occur in the EA area; in fact, no prairie dog colonies exist within the EA area due to the steep topography. There have been numerous unconfirmed reports of ferret sightings within 15 miles of the EA area, both in Utah and Colorado; however, none of the sightings occurred on the EA area. Neither the Proposed Action nor the No Action Alternative would affect black-footed ferrets because suitable habitat does not occur in the EA area; therefore, the species will not be discussed further in this EA.

The EA area is south of the 51,000-acre Coyote Basin Primary Management Zone (PMZ) which is proposed for black-footed ferret (*Mustela nigripes*) reintroduction, although it is within the larger buffer area that would be designated as the "experimental population area." This is one of several such potential or proposed reintroduction areas that would be an integral part of the recovery plan for this federally listed endangered species. The Proposed Action would not affect reintroduction of black-footed ferrets in Coyote Basin because there are no prairie dog colonies suitable for black-footed ferret habitat within the EA area or along the existing roads which would be used for transporting ore to Little Bonanza.

3.1.1.2 Bald Eagle (*Haliaeetus leucocephalus*)

No officially designated critical habitat for the endangered bald eagle exists on the EA area. Bald eagles are known to hunt the uplands surrounding the White and Green Rivers, including the EA area, for jackrabbits, cottontails, and carrion during the winter. The species has been known to roost in large numbers along the cottonwood bottoms of the White River, one of which is located 1 mile southeast of the proposed mining operation. One adult bald eagle was observed during a field examination on March 5, 1997. However, bald eagles would not be affected because their use of the EA area is limited and seasonal. Therefore, the species will not be discussed further in this EA.

3.1.1.3 Peregrine Falcon (*Falco peregrinus*)

No endangered peregrine falcons are known to nest in the EA area, but peregrines have been observed and are believed to nest in the White River Canyon. Excellent peregrine nesting habitat (south-facing slopes in excess of 300 ft high within 1 mile of a river) exists within 1-2 miles of the mine site. Such habitat is nonexistent in the EA area. Peregrines may occasionally hunt the uplands surrounding the White River, including the EA area. However, peregrines would not be affected because their use of the EA area is limited, and occurs predominantly along the White River. Therefore, peregrine falcons will not be discussed further in this EA.

3.1.1.4 Whooping Crane (*Grus americana*)

Whooping crane, an endangered species, fly over the EA area on their migration flights, but do not use the EA area as there is no suitable habitat. Therefore, they would not be affected and will not be discussed further in this EA.

3.1.1.5 Fish

Two endangered fish species occur in the White River--the Colorado squawfish (*Ptychocheilus lucius*) and the razorback sucker (*Xyrauchen texanus*). Critical habitat has been designated for the Colorado squawfish in the White River adjacent to the EA area. Neither of the endangered fish species would be affected because there would be no water depletions nor would any sediments likely reach the White River due to the topographic relationship of the mine to the river. Therefore, the two endangered fish species will not be discussed further in this EA.

3.1.1.6 Candidate Animal Species

Candidate animal species (formerly federally listed as Category 1 candidate species) that occur in the general vicinity of the project area include mountain plover (*Charadrius montanus*). Mountain plovers generally nest in short-grass prairie habitat on the high, dry plains and are often associated with prairie dog colonies. They have been documented in suitable habitat several miles to the north of the EA area; however, there is no suitable habitat in the EA areas for the mountain plover, and the species will not be discussed further in this EA.

3.1.1.7 Other Special Status Wildlife Species

Four special status wildlife species may occur in the vicinity of the EA area. The golden eagle is protected by the Bald Eagle Protection Act. The ferruginous hawk (*Buteo regalis*),

flannelmouth sucker (*Catostomus latipinnus*), and roundtail chub (*Gila robusta*) were former Category 2 species until February 28, 1996, when the U.S. Fish and Wildlife Service dropped their former Category 2 and Category 3 lists. The ferruginous hawk and roundtail chub are still considered to be State Sensitive Species (Utah Divisions of Wildlife Resources 1987).

Ferruginous hawks inhabit the EA area and surrounding areas, and numerous active and inactive nests have been located in surveys conducted primarily in conjunction with construction of a railroad and power line associated with the Desert Generation and Transmission Power Plant north of the EA area. Adequate nesting habitat for the ferruginous hawk exists within 0.5 mile of the mine in the form of scattered Utah junipers and rock pinnacles and ledges. The lack of a reliable prey base and steepness of the canyon walls may preclude the area as nesting habitat. Ferruginous hawks would not be affected because no active or inactive nests have been located to date within 0.5 mile of the EA area, and the species will not be discussed further in this EA.

Golden eagles are protected under the Bald Eagle Protection Act. Golden eagles are present within the EA area year-round, and at least two golden eagle nests are located on a steep cliff face 2,954 ft north of the mine. The two nests are considered part of one golden eagle territory, which may consist of other alternate nest sites in the area as well. However, no other alternate nests were located in a very minimal survey conducted in March, 1997. The easternmost of the two nests located appears to have a significant amount of white-wash (excrement), indicating very recent activity. An adult eagle was observed flying near the cliff face on March 6, 1997, and was also seen perched on a ledge about 30 ft below the major nest. Golden eagles normally begin their nest site selection, courtship and breeding activities in February; therefore, seeing an eagle within a nesting territory, and perching near a nest, is likely an indication that the nest has been selected for use during 1997.

Both nesting sites observed are within line-of-sight of all activities that would occur at the mine. Although the mine itself is beyond a 0.5-mile radius of the nest sites by 314 ft, the

access road to the site is within the 0.5-mile radius and also within line-of-sight of the nests for the last 0.5 mile before it reaches the mine. At its closest point, the access road passes within 880 ft of the nests.

Flannelmouth sucker and roundtail chub are both found in the White River east and south of the EA area. Neither would be affected because there would be no water depletions, and the small amount of surface disturbance would not result in a significant increase in the amount of sediment reaching the White River. Therefore, neither species will be discussed further in this EA.

3.1.2 Threatened, Endangered, Candidate, and Other Special Status Plant Species

Because of already disturbed site conditions in the project area, no threatened, endangered, candidate, or plant species of concern are likely to occur; therefore, no further discussion is included in this EA.

3.2 HAZARDOUS AND SOLID WASTES

No hazardous or solid wastes are known to be stored or to otherwise occur in the project area at this time.

3.3 RECREATION

The project area would be located just north of the White River canyon, an area that BLM estimated was used by 1,000 recreational boaters during 1996. Demand for boating is anticipated to increase in the future. Most use is in the spring--from May 15-June 15--when higher river flows facilitate the passage of canoes and rafts, although limited recreational use occurs throughout the spring, summer, and fall months, and most use occurs on weekends. The portion of the White River between Rangely, Colorado, and the confluence with the Green River near Ouray, Utah, cuts through spectacular canyon scenery. Most

boaters launch at the Bonanza (State Route 45) bridge, located just south of the project area, and take out 35 miles downstream at either the Mountain Fuel Bridge or at an Enron Oil and Gas Company well in Section 28 of T9S, R22E.

Some noise from operating gilsonite mines is audible from portions of the river at the present time as a relatively low level, high-pitched whine and is variable in intensity depending upon location on the river and meteorological conditions. Because the White River is in a deep canyon, no development activity associated with existing gilsonite mining is visible from the river. Water pumping facilities for oil and gas development are located on the banks of the White River just below the Bonanza bridge--a popular access point for recreationists floating the river. However, the oil and gas wells themselves are located away from the river and are not visible from the river.

4.0 ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES

4.1 THE PROPOSED ACTION

4.1.1 Special Status Wildlife Species

Trucks hauling gilsonite from the mine would pass within 880 ft of the two golden eagle nests located to the north of the mine. These two nests are considered to be part on one territory, so only one would be occupied at any given time. The trucks would be within 0.5 mile of the nests from shortly after the trucks left the mine until they passed the nests and the access road turned to the east. After this time, the trucks would no longer be within line-of-sight of the nests, although they would still be within 0.5 mile for some time. The nests are located in an area that is presently subjected to only occasional vehicular disturbance. It is possible that the trucks hauling gilsonite could disturb golden eagles using these nests and cause them to desert their nest, resulting in reproductive failure.

4.1.2 Recreation

The proposed mine developments would not be visible from the White River because they would be located behind the ridge line above the river; therefore, nothing in the Proposed Action would be visible to recreationists floating the White River. The generator and fans would produce additional noise that would be audible to recreational users on the White River, and this noise would add to that already present from existing gilsonite operations. However, the proposed mine would not operate on weekends, when most recreational use of the White River occurs, so there would be no additional noise on weekends.

4.1.3 Mitigation

Complete mitigation for disturbance of nesting golden eagles would be accomplished by using an alternative access road to and from the proposed mine during times when golden

eagles would occupy the nests to the north of the mine--approximately February 1 to July 15. The alternative access road would exit the mine area to the west of the eagle nests, and would be 0.5 mile, or slightly less, away from the nests, or out of line-of-sight of the nests (Figure 4.1). If this mitigation is implemented, the dugway would be widened by 3.0 ft for a distance of 100 ft as a safety precaution for turning trucks.

Existing noise audible to recreational boaters on the White River would be partially mitigated if Ziegler examined its existing operations to determine if noise reductions are practicable--especially by adjusting the direction of exhausts--and if such practicable measures would be implemented.

4.2 THE NO ACTION ALTERNATIVE

4.2.1 Special Status Wildlife Species

Under the No Action Alternative there would be no additional disturbance of golden eagle nests located north of the proposed mine. Occasional vehicular traffic, primarily related to recreational use, would continue to use the road.

4.2.2 Recreation

Recreational use of the White River would likely increase, following the trend of the past several years. Noise from existing gilsonite mines and processing facilities would likely continue at existing levels.

4.2.3 Mitigation

There would be no mitigation for special status wildlife species.

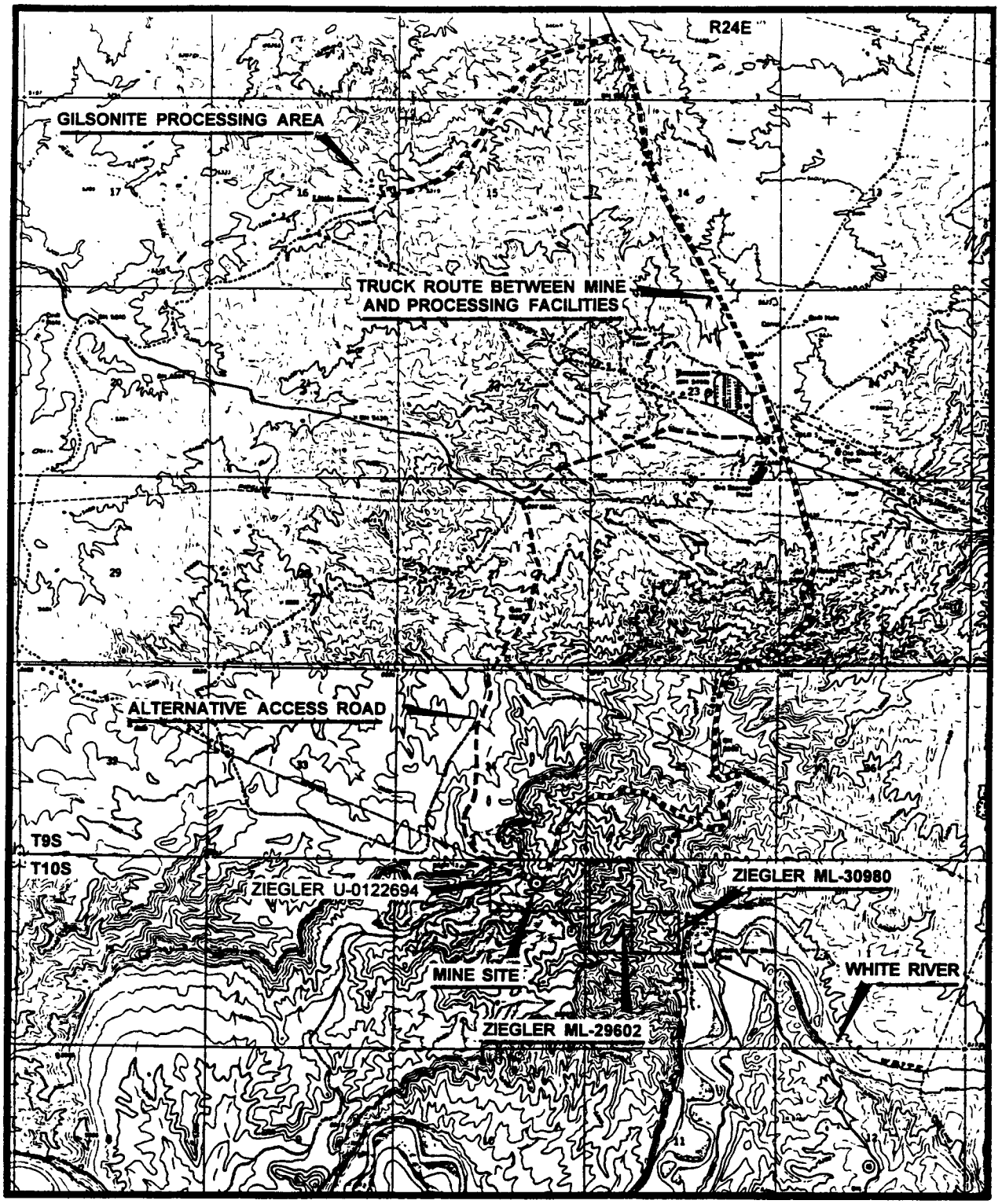

Figure 4.1 Location of Alternative Access Road.

Partial mitigation for noise from existing gilsonite operations audible to recreational boaters on the White River could be accomplished if Ziegler examined its existing operations to determine if noise reductions are practicable--especially be adjusting the direction of exhausts--and if such practicable measures would be implemented.

4.3 UNAVOIDABLE ADVERSE IMPACTS

Under the Proposed Action there is a possibility of disturbing nesting golden eagles and causing reproductive failure. Some additional noise would be audible to recreational boaters on the White River.

Under the No Action Alternative, there would be no unavoidable adverse impacts.

4.4 RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

For the short-term period of use during which the mine would be productive under the Proposed Action (estimated to be 5 to 7 years), gilsonite would be mined and marketed. Nesting in one golden eagle territory could be disturbed, resulting in reproductive failure and possible desertion of the territory. Additional noise from mine operations would be audible to recreational boaters on the White River. In the long-term (once mining operations ceased) potential golden eagle nesting habitat would no longer be disturbed and would be available to golden eagles to reestablish a nesting territory. Noise generated by the proposed mine would end and decrease noise audible to recreational boaters on the White River.

In the short-term under the No Action Alternative there would be no disturbance of golden eagle nests and no additional noise audible to recreational boaters on the White River. In the long-term, impacts to golden eagle nests and noise audible to recreational boaters on the White River would be similar to those under the Proposed Action.

4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

None.

4.6 CUMULATIVE IMPACTS

4.6.1 Reasonable Foreseeable Development

At the present, time there are no authorized prospecting permits for gilsonite; however, there are 24 pending applications, most of which are probably in known gilsonite areas, and will likely require competitive bids. Three companies presently control 12 authorized leases, of which three are being mined at the present time. All of these leases are located in the northeastern portion of the Uinta Basin, primarily in the Bonanza area. The BCRMP (BLM 1984) stated that 1-5 miles of currently unleased gilsonite veins would be leased between 1984 and 1994 and subsequently developed. Continued activity at this same level appears likely during the next 10 years, but will depend upon market demand for gilsonite. Development would be similar to that described in this EA and in the EA for Ziegler's Cowboy-Bandana Mine (BLM 1994), with mine staging areas at intervals of 600-1,200 ft along a vein, and each staging area disturbing 1-3 acres. Each staging area would remain in existence for up to 10 years.

Other development activities of significance that are likely to occur in the next 10 years in the vicinity of the EA area include oil and gas development. An existing oil field--the Coyote Basin Field located about 9 miles northeast of the EA area--recently had additional wells drilled, and oil and gas development began in the Red Wash Field (about 14 miles north of the EA area) in 1951. Both of these areas are likely to see additional development in the reasonably foreseeable future, as are extensive fields to the south of the White River.

4.6.2 Cumulative Impacts

4.6.2.1 Special Status Wildlife Species

Oil and gas development is likely to be proposed in areas where golden eagle nests are located. Mitigation for such development generally includes seasonal restrictions to isolate occupied nests from construction and drilling disturbances during the nesting season--February 1 to July 15. These seasonal restrictions are applied to an area within a 0.5-mile radius of the nest, and may be increased or decreased depending upon each individual situation, especially topography. The success of seasonal restrictions in protecting nesting golden eagles varies. The Proposed Action would add to the potential for disrupting successful golden eagle nesting with respect to the nests just north of the mine.

4.6.2.2 Recreation

Existing gilsonite operations presently create noise from fans and generators that are audible to recreational boaters at the White River. The installation of additional generators and fans that may be heard by recreationists along the White River would add to existing noise levels and would have a negative impact on their expectation for an experience of solitude in a relatively undisturbed river canyon.

5.0 INTENSITY OF PUBLIC INTEREST

Because this proposed project involves recreation along the White River, public interest was expected to be high. The EA was distributed to a mailing list including 44 names and addresses and through news released to local media. Copies of the EA were made available at the BLM's Vernal District Office. One comment letter was received: the Governor's Office of Planning and Budget said they reviewed the proposal and had no comments at this time. The EA and FONSI are also being distributed to the 44-name mailing list, and copies are available at the BLM's Vernal District Office.

6.0 RECORD OF PERSONS AND GOVERNMENTAL AGENCIES CONSULTED

Agency	Individual	Position
Bureau of Land Management, Salt Lake City, Utah	Connie Seare	Land Law Examiner
Bureau of Land Management, Salt Lake City, Utah	Stan Perkes	Mine Engineer

7.0 LIST OF PREPARERS

Name	Firm	Responsibility
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Darryl Newton	TRC Mariah Associates Inc., Laramie, Wyoming	Cartography
Robert E. Covington	Hiko Bell Mining and Oil, Vernal, Utah	Mining Plan

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